Application No.: 09/852,416 Docket No.: 300622000501

CLAIMS AMENDMENT

1-60. (cancelled)

61. (currently amended): A macrolide polyketide or a glycosylated macrolide polyketide obtainable by a method comprising:

providing a modified 6-dEB synthase <u>containing all modules of said synthase</u> in the presence of a starter unit which is an acetyl or propionyl thioester and an extender unit which is a methylmalonyl thioester to obtain a <u>macrolide 14 member polyketide with the carbon skeleton of 6-dEB</u> and optionally effecting glycosylation of said <u>macrolide polyketide</u>

wherein said modified 6-dEB synthase comprises is functionally modified by at least one modification selected from the group consisting of:

- a) replacing the β-keto modifying (BKM) catalytic region in module 2 to contain, in addition to ketoreductase (KR) activity, dehydratase (DH) activity and optionally DH and enoylreductase (ER) activity;
- b) replacing the BKM region in module 3 with a BKM region which contains KR activity, optionally KR and DH activity and optionally KR, DH and ER activity;
- c) replacing the BKM region of module 5 with a BKM region which comprises, in addition to KR activity, DH activity and optionally DH and ER activity; [[and]] or
- d) replacing the BKM region in module 6 to contain a BKM region which comprises, in addition to KR activity, DH activity and optionally DH and ER activity.
- 62. (currently amended): The macrolide polyketide or glycosylated macrolide polyketide of claim 61 wherein at least 2 said modifications have been effected.
- 63. (currently amended): The macrolide polyketide or glycosylated macrolide polyketide of claim 62 wherein at least 3 said modifications have been effected.
- 64. (currently amended): The macrolide polyketide or glycosylated macrolide polyketide of claim 63 wherein at least 4 said modifications have been effected.

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65. (currently amended): The macrolide polyketide or glycosylated macrolide polyketide of claim 61 wherein no more than 2 said modifications have been effected.

- 66. (currently amended): The macrolide polyketide or glycosylated macrolide polyketide of claim 61 wherein no more than 3 said modifications have been effected.
- 67. (currently amended): The macrolide polyketide or glycosylated macrolide polyketide of claim 61 wherein no more than 4 said modifications have been effected.
- 68. (currently amended): The macrolide polyketide or glycosylated macrolide polyketide of claim 61 which has the formula:

wherein R* is methyl or ethyl;

each of R¹-R⁶ is methyl;

X1 is OH or H; and/or

 X^2 is =O, OH or H; [[and/or]]

X³ is OH or H; [[and/or]]

 $[[X^5]] X^4$ is OH or H; [[and/or]]

a pi bond is present at positions 10-11, 8-9, 4-5 and/or 2-3; and wherein at least one of the following restrictions characteristics is present:

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 X^1 is H;

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X² is OH or H;

 X^3 is H;

 X^4 is H; [[and/or]] or

a pi bond is present at positions 10-11, 8-9, 4-5 and/or 2-3.

- 69. (currently amended): The macrolide polyketide or glycosylated macrolide polyketide of claim 68 wherein at least 2 of said restrictions is characteristics are present.
- 70. (currently amended): The macrolide polyketide or glycosylated macrolide polyketide of claim 69 wherein at least 3 of said restrictions is characteristics are present.
- 71. (currently amended): The macrolide polyketide or glycosylated macrolide polyketide of claim 70 wherein at least 4 of said restrictions is characteristics are present.
- 72. (currently amended): The macrolide polyketide or glycosylated macrolide polyketide of claim 68 wherein no more than 2 of said restrictions is characteristics are present.
- 73. (currently amended): The macrolide polyketide or glycosylated macrolide polyketide of claim 68 wherein no more than 3 of said restrictions is characteristics are present.
- 74. (currently amended): The macrolide polyketide or glycosylated macrolide polyketide of claim 68 wherein no more than 4 of said restrictions is characteristics are present.
- 75. (currently amended): The glycosylated maerolide polyketide of claim 68 wherein the glycosyl residue is of L-mycarose or L-cladinose at position 3 and D-desosamine at position 5.

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